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A Geostatistical Study for  
Geology - Energy - Mineral Resources  
in the California Desert

Appendix A - Geology-Energy-Mineral  
Resource Occurrences

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A GEOSTATISTICAL STUDY FOR  
GEOLOGY - ENERGY - MINERAL RESOURCES  
IN THE CALIFORNIA DESERT

- APPENDIX A -  
GEOLOGY-ENERGY-MINERAL  
RESOURCE OCCURRENCES

This volume is part of a report prepared under Contract Number YA-512-CT7-223 for the U.S. Bureau of Land Management, California Desert Planning Project, 3610 Central Avenue, Suite 402, Riverside, California 92506. While officials of the Bureau of Land Management provided guidance and assistance in preparing the study, the contents do not necessarily represent the policies of the Bureau.

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ANNEX I Reported Mineral Occurrences In The CDCA

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Reported Mineral Occurrences In The California Desert Conservation Area

Reported Wells Drilled In the California Desert Conservation Area (Oil and Gas, CO<sub>2</sub>, Geothermal Fluids)

Reported Gold Occurrences In The California Desert Conservation Area

Reported Copper Occurrences In The California Desert Conservation Area

Reported Lead-Silver-Zinc Occurrences In The California Desert Conservation Area

Reported Silver Occurrences In The California Desert Conservation Area

Reported Manganese Occurrences In the California Desert Conservation Area

Reported Iron Occurrences In The California Desert Conservation Area

Reported Tungsten Occurrences In The California Desert Conservation Area

Reported Uranium Occurrences In The California Desert Conservation Area

Reported Sand And Gravel Pits In The California Desert Conservation Area

Reported Saline Deposits In The California Desert Conservation Area (Sodium Salts, Potassium Salts, Borates, Gypsum, Other Salines)



distributions in each category, not because of their absolute value. Values were averaged over the 50 year period, 1901 to 1950, because most production in the CDCA occurred over those years.

2. Sand and gravel pits are assigned production categories on the basis of capacity as follows:

2 = under 100 tons per hour

3 = 100 to 1000 tons per hour

4 = over 1000 tons per hour

3. If production data are given for selected years only, they are treated as the only years of operation and converted to dollars as in 1 above.
4. If tonnages or grades of ore are not given, but production is indicated, the mine is assigned to Production Category 2.
5. If no production is indicated, but an adit, shaft, pit or other sign of workings exists, the mine is assigned to Production Category 1.
6. Otherwise, the mine is assigned to Production Category 0. This includes (a), mines identified by MILS with no indication of production and (b), mines located in the USGS "Reported Occurrence of Selected Minerals" but which are not referred to in some other source.
7. "Preliminary Reconnaissance Reports of Uranium Occurrences" are classified as follows:
  - 0 = Locations where radiation is more than three times background
  - 1 = Workings
  - 2 = Department of Energy "labeled reserves"

## Production Category

For each occurrence, a production category 0 through 4 was assigned as defined in Table A-1. Because production data are available for very few mines, the following rules were used in classifying each occurrence.

### Rules for Classification of Production Codes

- I. All available production data are converted to dollars using the following conversions (1973 market prices are shown for comparison):

<u>Commodity</u>	<u>Units</u>	<u>Conversion Price</u>	<u>1973 Market Price</u>
Copper*	per pound	\$.15	\$.60
Gold*	per ounce	\$25.52	\$97.81
Lead*	per pound	\$.06	\$.16
Zinc*	per pound	\$.07	\$.21
Silver*	per ounce	\$.61	\$2.56
Iron#	per ton ore, unprocessed	\$2.64	\$12.11
Manganese#	per long ton ore (35% Mn or more)	\$22.24	\$36.00+
Tungsten#	per unit of WO <sub>3</sub>	\$14.32	\$43.04
Talc#	per ton, crude	\$6.50	\$7.33

\*New York Metal Market prices. Conversion price is average price over the years 1901 - 1950.

#These prices were obtained from the Bureau of Mines Minerals Yearbook. Conversion price is average price over the years 1901 - 1950.

+Estimated.

In some cases, production history was reported in terms of quantity (e.g., ounces of gold or tons of iron ore). In other cases, production was reported in terms of value (e.g., \$498,000 of gold). For statistical purposes, it was necessary to show production history on a consistent basis. Since value figures did not always show year or years when mining occurred, it was not possible to convert to a specific adjusted dollar value. Thus, quantities were converted to value using average prices. As a result, production values are on a consistent, but not current, price basis. The purpose was to rank occurrences into one of five classes according to economic value. This method of ranking, while not reflecting current market values, is accurate in classifying occurrences. The specific category divisions (\$50,000 and \$500,000) were chosen to yield reasonable statistical

Table A-2  
COUNTY CODES

<u>County</u>	<u>Code</u>
Imperial	025
Inyo	027
Kern	029
Los Angeles	037
Mono	051
Riverside	065
San Bernardino	071
San Diego	073

Table A-1  
MINERAL OCCURRENCES IN THE CDCA<sup>a</sup>  
BY COMMODITY AND PRODUCTION CATEGORY

Commodity	Symbol	Production Category <sup>b</sup>					Total All Categories
		0	1	2	3	4	
<u>Metals</u>							
Antimony	A	3	5	8	0	0	16
Copper	Cu	86	146	80	12	0	324
Gold	Au	166	400	172	46	22	806
Iron	Fe	29	27	19	1	0	75
Lead	Pb	69	87	46	16	5	223
Manganese	Mn	26	49	21	3	3	102
Mercury	Hg	5	3	1	0	0	9
Nickel	Ni	1	2	0	0	0	3
Molybdenum	Mo	1	1	1	0	0	3
Rare earths	RE	5	7	0	0	1	13
Silver	Ag	5	47	22	2	4	80
Tin	Sn	1	1	0	0	0	2
Titanium	Ti	0	1	0	0	0	1
Thorium	Th	0	1	0	0	0	1
Tungsten	W	30	70	45	3	3	151
Uranium	U	115	15	14	0	0	144
Vanadium	Va	0	1	0	0	0	1
<u>Non-Metals</u>							
Asbestos	As	3	0	1	0	0	4
Barium	Ba	10	7	6	0	0	23
Clay	Cl	13	28	25	5	2	73
Dimension stone	Ds	7	9	18	0	0	34
Feldspar	Fd	8	4	4	0	0	16
Fluorspar	Fl	6	9	3	0	0	18
Gemstones	Gs	22	13	3	0	0	38
Limestone	Ls	48	20	23	2	3	96
Magnesite	Mg	1	9	4	0	0	14
Mica	Mi	3	3	6	0	0	12
Roofing granules	RG	0	1	9	0	0	10
Sand and gravel	SG	39	20	43	12	0	114
Silica	Si	10	1	10	1	1	23
Sulfur	S	1	2	2	0	0	5
Talc	Tc	24	20	11	12	7	74
Volcanic cinders	VC	29	18	18	0	0	65
Wollastonite	Ws	1	1	1	0	0	3
Miscellaneous	Ms	2	2	2	0	0	6
<u>Salines</u>							
Borates	B	35	2	15	2	2	56
Calcium chloride	CC	1	1	3	0	0	5
Gypsum	G	19	7	11	0	1	38
Magnesium salts	MC	1	0	0	0	0	1
Potassium salts	KS	1	1	5	0	0	7
Salt	NC	5	3	10	0	0	18
Sodium carbonate	SC	0	0	4	0	0	4
Sodium sulfate	SS	5	0	2	0	0	7
Strontium	Sr	3	0	4	0	0	7
Total All Commodities		838	1,044	672	117	54	2,725
<u>Wells</u>							
Oil and gas (all are dry holes)							188
Carbon dioxide							8
Geothermal							88
Total Wells							284

<sup>a</sup> Data on hot springs (HS) is included in the data base but has not been tabulated.

<sup>b</sup>

- 0 = Occurrence or claim
- 1 = Worked, but no production reported
- 2 = Small Producer (less than \$50,000)
- 3 = Moderate Producer (\$50,000 to \$500,000)
- 4 = Major Producer (over \$500,000)

Some confusion exists in reporting locations of occurrences because of inaccuracies in location, errors in reporting, or errors in one or more references. Occurrence data were carefully edited to eliminate "double counting" or combining separate occurrences. However, since field verification was not possible, there are unavoidable errors in the location information, but these are believed to be relatively few and of minor significance.

### Commodities

Each location is associated with one or more commodities. Commodities are listed in Table A-1. Locations where more than one commodity is reported are identified with the primary commodity produced. In cases where more than one commodity has been produced in significant quantity, each commodity is reported as a separate occurrence.

Occurrences are identified using the following format:

XX AA YYY

where XX is the county code (see Table A-2), AA is the commodity symbol (see Table A-1) and YYY is the sequence number for that commodity in that county. YYY begins with 001 and is increased occurrence by occurrence within each county. YYY is an identifier only and does not represent any other information. For example,

29 Au 105

is gold (Au) occurrence number 105 in Kern County (29).

### References

The reference from which the information was obtained is listed for each occurrence. References are listed in this appendix and in the main report.

## 2. COMPILATION OF MINERAL OCCURRENCE INFORMATION

Information on each occurrence was gathered and encoded for entry into a computerized data base. Information for each occurrence includes the following, if available:

- Location (UTM coordinates; county; section, township, range)
- Commodity
- Production category
- Reference
- Name of deposit
- Production and geologic information

### Location

The procedure for obtaining the location of occurrences in the CDCA is as follows:

1. Start with the U.S.G.S. 1:250,000 topographic sheets.
2. Plot the location of mines described in the CDMG County Reports (References 1-7).
3. Add the locations (not identified in 2) of uranium claims described in Department of Energy's preliminary reconnaissance reports (PRRs) (Reference 8).
4. Add the locations (not identified in 2 and 3) of mines described in the Southern Pacific Railroad's report, "Mineral Resources of Southern California" (Reference 13).
5. Add the locations (not identified in 2, 3 and 4) of mines presented on the
  - a. CDMG Economic Mineral Maps (References 9, 10 and 11).
  - b. USGS Mineral Occurrence Map (Reference 12).
6. Add the locations (not identified in 2, 3, 4, and 5) of mines described in the USGS's Planning Unit reports (References 14 through 19).
7. Add the locations (not identified in 2, 3, 4, 5 and 6) of mines identified by the U.S. Bureau of Mines' Mineral Industry Location System (MILS) (Reference 20).

from individual producers, all other sources of information identified were utilized for this project. These sources are listed in the references section of this Appendix.

Occurrences of forty-eight resource types have been reported in the CDCA as summarized in Table A-1. Of the total of 3,009 occurrences, 284 are wells drilled in search of oil, gas, carbon dioxide, or geothermal fluids. Of the 2725 non-well occurrences, only 54, or 2 percent, reported production over \$500,000. Occurrences were assigned dollar values according to "Rules for Classification of Production Codes" (see page 7).

Following Table A-1 are 12 maps of mineral occurrences as follows:

1. Reported mineral occurrences in the CDCA.
2. Reported wells drilled in the CDCA (oil and gas, CO<sub>2</sub>, geothermal fluids).
3. Reported Gold occurrences in the CDCA.
4. Reported Copper occurrences in the CDCA.
5. Reported Lead occurrences in the CDCA.
6. Reported Silver occurrences in the CDCA.
7. Reported Manganese occurrences in the CDCA.
8. Reported Iron occurrences in the CDCA.
9. Reported Tungsten occurrences in the CDCA.
10. Reported Uranium occurrences in the CDCA.
11. Reported Sand and Gravel pits in the CDCA.
12. Reported Saline deposits in the CDCA (sodium salts, potassium salts, borates, gypsum, other salines).

## I. INVENTORY OF DEPOSITS AND WELLS

This appendix presents details about the collection, encoding and analysis of reported occurrences of Geology-Energy-Mineral (G-E-M) resources in the California Desert Conservation Area (CDCA). The appendix is a supplement to the main report. Contained in this appendix are:

1. An inventory of known deposits and wells in the CDCA.
2. Maps of the location of the most frequently occurring minerals in the CDCA.
3. The method of data collection and classification.
4. The codes and formats used in the data file.

A complete compilation of known resource occurrences in the CDCA serves three purposes:

1. Information about the nature, extent and location of known G-E-M occurrences is required for land use planning.
2. Since it is more likely that unknown G-E-M deposits are near existing deposits, the location of known occurrences is a possible indicator of the existence of as yet unidentified deposits.
3. By using geostatistical analysis, relationships between known resource locations and the local geologic environment may be found that would indicate potential resource locations with similar environments.

Since information regarding deposits is considered proprietary by most owners, compilation of an accurate inventory is difficult. Some operators and owners will not reveal information about deposits unless required to do so by government regulations or by potential investors. Even if information is reported publicly, it can be distorted, depending on the motivations of the operator or owner. For these reasons, any compilation of resources must be considered partially incomplete and inaccurate.

Sources of information for deposits vary in accuracy and completeness. The best publicly maintained source is the annual questionnaire submitted to the U.S. Bureau of Mines (USBM) by individual producers. Since these questionnaires are considered proprietary by USBM, they were not available for this study. A polling of individual producers was beyond the scope of this project. Except for the USBM questionnaire and information

### MILS Reference Number

The Mineral Industry Location System (MILS) is maintained as a computerized data base by the USBM. Each reported occurrence in MILS is coded in the form:

AA BBB CCCCC

where:

AA is the state code (California's code is 06).

BBB is the county code. County codes in the CDCA are shown in Table A-2.

CCCCC is the MILS reference number.

Since the state code is the same for all entries and the county code (less its beginning zero) is part of the commodity identification, only CCCCC is included as a separate entry in the production data base.

### Other Information

Other information includes the name of the mine or claim and specific production and geologic information.



### 3. OIL, GAS, CO<sub>2</sub> AND GEOTHERMAL WELLS

#### OIL AND GAS WELLS

There are no known oil or gas fields in the CDCA. In general, the oil and gas potential is very low. However, there have been sporadic attempts at oil and gas exploration since 1920. All of these attempts resulted in dry holes, although some encountered traces or "shows" of oil and gas. While most of the wells have been drilled by operators not regularly associated with the oil industry, a few of the wells were drilled by major oil companies. These, it is assumed, were drilled to test bona fide prospects.

Maps and information on oil and gas wells in the CDCA were obtained from the California Division of Oil and Gas. Well histories were obtained from Munger Service of Los Angeles. These data are summarized in Table A-3.

The well summaries, as provided by Munger Service, yield relatively little geological information. Lithologies encountered in drilling are listed in a few of the summaries, but are absent from most. We presume that the intervals penetrated by most of the exploratory wells consist of Tertiary and Quaternary non-marine sediments (principally sand and gravel, silt and clay). Some of the wells went to basement, encountering granite or other lithologies. The fact that oil and gas shows have been encountered in several wells is proof of the presence of oil and gas in the region, but the mere presence of shows should not be taken as a suggestion that commercial quantities of oil and gas exist. The oil and gas potential of the CDCA as a whole can best be estimated by comparison with other regions of generally similar geology. For example, in Nevada, which overall is rudely comparable geologically to the CDCA, oil is present in Railroad Valley which lies roughly equidistant between Tonopah and Ely. The oil occurs in Tertiary valley fill sediments. There are large volumes of Tertiary and Quaternary sediments in the intermontane valleys of the CDCA. Presence of oil and gas in a similar environment in Nevada suggests that much of this material may have some oil and gas potential, but there is no way to assess this potential accurately.

## CO<sub>2</sub> WELLS

There are eight CO<sub>2</sub> wells in the CDCA. Of these, three are producers, four were abandoned and the production status of one is unknown. The CO<sub>2</sub> is used primarily for the production of dry ice. CO<sub>2</sub> well summaries were provided by Munger Service. The information is summarized in Table A-4.

## GEOHERMAL WELLS

Information on geothermal wells was obtained from Munger Service, from the California Division of Oil and Gas and from the USGS "Geothermal Land Classification Map for California - Southern Half." Although a large portion of the CDCA has been designated as either a "Known Geothermal Resource Area" (KGRA) or a "Valuable Prospective Area" by the USGS, the CDCA does not currently contain any producing geothermal wells. However, current exploration and development activities indicate that producing wells may exist in the future, especially within the ten KGRAs. Table A-5 contains a summary of information on geothermal wells.

## SUMMARY OF EXPLORATORY WELLS DRILLED FOR OIL AND GAS IN THE CDCA

UTM Coordinate	Operator	Lease	Well Number	Year		Elevation (feet)	Total Depth (feet)	Location	Shows Reported	Depth Basement Encountered (feet)
				Start	Complete					
PK 4424	Major Oil Corporation	Ramseyer	1-35	1973	1973	2660RT	3477	35-16N-15E	3200': $\pm$ 100' of thinly embedded oil sand	
PK 6026	Major Oil Corporation	Thompson	63A-30	1971	1977	2977KB	827	30-16N-16E		
MK 0814	Wm. Bosustow Company			1916	1916		4060	27-29S-37E MD*		
PK 5024	Ivanpah Oil Association	Ivanpah	1	1940	1962	2600GR	2211	23-15N-15E	1900': Gas Reported	
PK 5024	Major Oil Corporation	Ivanpah	2-23	1972	1972		1870	23-15N-15E		190'
MK 7616	The Arapahoe Petroleum Co.		1	1925	1925	916GR	190	8-15N-8E		
PK 4214	Emmett J. Culligan	Culligan	1	1966	1966	3363RT	2145	24-15N-14E		
PK 4814	Major Oil Corporation	Ivanpah	1-23	1971	1971		2440	23-15N-15E MD	940'-1060': Oil Showings	
MK 1208	Western Research Lab. Inc.	Crook Shank	A-1	1949	1949	2234RT	1821	13-30S-37E MD		
MK 1203	Red Rock Company	Red Rock	1	1940	1940	2253	2942	13-30S-37E MD		
MK 0804	Crown Drilg. Company	Rancho Rico	1	1953	1953	2063KB	4760	27-30S-37E MD		
MK 0804	Alvern Pet. Company	Alvera	1	1953	1953		700	27-30S-37E MD*		
MK 1206	J & S Exploration Company	Crook Shank	2	1944	1944	2190GR	2883	19-30S-38E MD		
MK 1206	J & S Exploration Company	Crook Shank	3	1944	1944	2125GR	2950	19-30S-38E MD		
MK 1408	Red Rock Oil Company, Inc.			1926	1926		2727	19-30S-38E MD*		
MK 1206	Chas. W. Harlow			1926	1926		5065	30-30S-38E MD*		
MJ 0896	Blake, Thomas M.	Cinco	1	1944	1945	2230GR	1718	22-31S-37E MD	985' - Oil Sand 1435' - Gas 1495' - Oil and Gas	
MJ 0896	Cinco Development Company	Hix	1	1946	1947	2225GR	1440	22-31S-37E MD		
MJ 1096	Park, T. L. (P&H Oil Co.)	Dove	1	1945	1945	2200GR	60	25-31S-37E MD		
MK 1400	Geo. A. Parsons		1	1924	1924		151	15-31S-38E MD*		
MJ 1496	Fremont Oil Corporation		1	1924	1924		1440	22-31S-38E MD*		
MJ 1496	Fremont Oil Corporation		2	1926	1926		2620	22-31S-38E MD*		
LJ 8694	Paul Beamer	Well	1	1948	1949	2934DF	1825	20-32S-36E MD		
MJ 0690	J. S. & L. Company	Childs-Wall	1	1945	1947	2465GR	2266	9-32S-37E MD	1351' - Oil (few) 1460' - Oil Shows 1220-1240'	
MJ 0890	National Security Oil		1		1921		111	11-32S-37E MD*		
MJ 2690	J. E. Johnson	M & R	1	1946	1947		2422	9-32S-39E MD		1379'
MJ 7488	Joshua Hills of Calif.	Ricky	1	1957	1958	2800GR	210	16-32S-44E MD		
MJ 7484	Herbert A. Schesler	Pyramid-								
		Schweitzer								
MJ 7082	Fremont Development Co.	Fremont	1	1959	1970	2450GR	4046	28-32S-44E MD		3170'
LJ 9880	Beamer, Paul (Newton Oil Company)		1	1952	1952	2300GR	2468	34-12N-4W		2650'
LJ 9678	Mojave Oil Company	Oswald	1	1945	1950	2500GR	1092	12-11N-12W		
MJ 0676	B.C. Mackey		1	1916	1916		1040	14-11N-12W	*	
MJ 0676	P. Ray Asmussen & Assoc.		1	1926	1926		678	23-11N-11W	*	
MJ 2276	Kendall Dev. Company, Ltd.		1	1927	1927		1512	23-11N-11W	*	
MJ 6274	Myron T. King		1	1932	1932		1345	27-11N-9W	*	
MJ 7270	Trumpet Resources Dev. Co.	Alicia	1	1959	1959	2386KB	3553	28-11N-5W		3150'
		Lynx Cat								
MJ 7070	O.M. Lowell	Mountain	1	1968	1968	2261GR	1817	34-11N-4W		
		Chicago Bar-								
		stow Oil								
NJ 8876	Mizpah Oil Company	16	1	1913	1913	2200	2700	35-11N-1W		2700'
PJ 1074	Harding, John B.		2	1923	1923	1188GR	1512	16-11N-9E		
				1911	1911			23-11N-11E		

## SUMMARY OF EXPLORATORY WELLS DRILLED FOR OIL AND GAS IN THE COCA

UTM Coordinate	Operator	Lease	Well Number	Year Start	Year Complete	Elevation (feet)	Total Depth (feet)	Location	Shows Reported	Depth Basement Encountered (feet)
LJ 7666	Willow Springs Oil Company	Lucky Strike	1		1938		4126	27-10N-14W	*	
LJ 7864	Regina Oil Corp., Ltd.	Marsh	1		1934		3267	35-10N-14W	*	
MJ 1272	John B. Harding		2		1932		1104	5-10N-10W	*	
PJ 1074	John B. Harding	Harding	5		1928		1048	5-10N-10W		
MJ 1268	Crusaders Oil		1		1924		1200	21-10N-10W	*	
MJ 5070	George H. Marsh	Well	1	1948		2503	1272	5-10N-6W		1272'
MJ 6670	G. A. Grober & Associates	Well	2	1955		2260KB	1877	1-10N-5W		1877'
MJ 6470	Interstate Oil Corporation	Kraemer	3	1924		2200	2947	2-10N-5W		2947'
MJ 6470	Mojave Basin Oil Company	2	1	1924		2223	700	2-10N-5W		
MJ 6470	Jack Radovich	Radovich	1	1950		2250GR	3160	3-10N-5W	3160' - Gas Showings	3164'
MJ 5870	L.A. Thomson	Thomson- Cimarron	1	1963		2513KB	3500	7-10N-5W		
MJ 6470	Equitable Pet. Explor. Co.		1	1935		1937	3042	11-10N-5W	938' - Oil & Gas 1341' - Oil & Gas 1999' - 1.99% Oil	2864'
MJ 6670	G. A. Grober & Associates	Well	1	1953		2255RT	3124	12-10N-5W		3117'
MJ 6870	G. A. Grober & Associates	Well	3	1956		2255KB	1242	7-10N-4W		1242'
NJ 3870	Western Pacific	Well	3	1929		1780GR	3417	4-10N-4E		
NJ 3870	Western Pacific	4	3	1925		1765GR	3397	4-10N-4E		
NJ 3870	Western Pacific	4	1	1922		1760GR	2510	4-10N-4E		
NJ 3570	Sierra Oil & Gas Company	Wilhelm	1	1959		1750GR	6404	5-10N-4E		6404'
PJ 9868	Flamingo Oil Company	Flamingo	1	1957		1710KB	2680	18-10N-21E	Showings 2000 - 2200'	
LJ 4854	Robert Watchorn		1	1919			4150	27-9N-10W	*	
LJ 6860	Meridian Oil Company		1	1930			3970	11-9N-12W	3930' - Showing Oil	3902'
LJ 9254	Ebert & Brandt	C. L. Wilson	1	1967		2323KB	2233	32-9N-12W		
MJ 1860	Kern Torrence Pet. Corp.		1	1925			500	13-9N-10W	*	
MJ 6256	H. A. Pagenkopf	Encap	1	1949		2670GR	2780	22-9N-5W		
LJ 4650	John Q. Tannehill	Community	1	1954		2994RT	1325	10-8N-17W		2542'
LJ 6052	William J. Stava	Gorindo	1	1957		2804RT	1315	1-8N-16W		
LJ 6652	Fairmont Exploration Co.	Lane	1	1958		2670KB	2200	3-8N-15W		
LJ 6652	C. F. Staiger &									
LJ 7048	L. A. Freeman	Scott	10-1	1950		2657GR	3050	10-8N-15W		
LJ 6446	Solar Oil Company, Inc.	Singer	1	1950		2445GR	2090	13-8N-15W		
LJ 6244	H & K Exploration Company	Ben Hur	87-21	1950		2835KB	3430	21-8N-15W		
LJ 6244	San Roque Oil & Expl. Co.	Skelton	1	1961		3267OF	3155	31-8N-15W		
LJ 6844	Antelope Oil Company	Ouhart	1	1940		2700	2050	36-8N-15W		
LJ 9852	Morris B. Barks	Gloria	1	1950		2304GR	1256	2-8N-12W		
LJ 9846	George A. Denison		1	1921			1000	24-8N-12W	*	
MJ 0450	Rosamond Oil Company	Houston	3	1950		2300 (topo)	1387	15-8N-11W		
MJ 0252	C. W. Colgrove	flughes	11-9	1952		2300GR	5576	9-8N-11W		
MJ 3044	Lehr Company		1	1945			880	33-8N-8W	*	
MJ 3044	Lehr Company	Lehr	2	1946		3000	1000	33-8N-8W		
MJ 5650	Adelanto Development Corp.	Adelanto Oil Well							2400' - Gas and Oil	
MJ 5850	Adelanto Development Corp.	G	1	1954		3006RT	4500	12-8N-6W		3951'
MJ 6448	Adelanto Development Corp.		3	1956		300GR		7-8N-5W		2539'
NJ 3848	Allen-Weiss & Associates	Adelanto	G-2	1955		2850GR	2100	14-8N-5W		2100'
LJ 7442	H. W. Shaffer	Hosterman	1	1955		1803RT	1700	17-8N-4E		
LJ 7838	C. W. Colgrove	Munz	1	1951		2569KB	4428	9-7N-14W		4428'
LJ 7436	Barnes Core Drilling Co.	Schwandt	57-23	1951			3153	23-7N-14W		3153'
LJ 8836	Oel Sur Oil Company	McNaughton	1	1965		2804KB	465	28-7N-14W		
LJ 8636	COMCO	Oel Sur Godde	1	1945		2500	4106	26-7N-13W		
			1	1959		2400GR	2129	27-7N-13W		2129'

UIM Coordinate	Operator	Lease	Well Number	Year Start	Year Complete	Elevation (feet)	Total Depth (feet)	Location	Shows Reported	Depth Bottom Encountered (feet)
LJ 9244	H. B. Proctor	Comer	1	1955	1955	2361DF	1500	1-7N-12W		
LJ 9640	Antelope Oil & Gas Co.		1		1921		1640	11-7N-12W	*	
LJ 9640	Antelope Oil & Gas Co.		2		1925		1905	11-7N-12W	*	
MJ 0044	Cedric E. Brown Gas & Oil Company, Inc.	Well	1	1956	1956	2359RT	3440	5-7N-11W		
MJ 0044	Cedric E. Brown Gas & Oil Company, Inc.	Well	2	1956	1958	2359RT	3040	5-7N-11W	*	
MJ 0238	John B. Harding	La Loma	1	1927	1927	2465GR	973	28-7N-11W		
MJ 1640	D. H. Wood	5	2	1927	1927	2465GR	850	5-7N-10W		
MJ 1044	D. H. Wood	5	1	1927	1927	3000GR	795	5-7N-10W		
MJ 2636	Citizens Oil & Land Corp.		1	1922	1922		100	36-7N-9W	*	
MJ 2842	James F. Whitehorn	Whitehorn- Card	1	1952	1952	2075GR	330	7-7N-8W		
LJ 8430	Farned, LeValley & Greer	Ritter	1	1951	1951		850	15-6N-13W		
LJ 9032	Anapola Oil Corporation	Well	1	1946	1947	2540	1762	6-6N-12W	1750' - Oil & Gas Showings 840-910'	
LJ 9432	John B. Harding	Well	1	1939	1925			9-6N-12W	*	
LJ 9230	New Cal Oil Company	Well	1	1937	1939		1219	17-6N-12W	1219' - Oil & Gas 845-1170'	
LJ 9230	Antelope Valley Pet. Co.	Well	1	1937	1938		1070	17-6N-12W	1070' - Oil & Gas	
MJ 0624	Christenson, Roy M.		1	1922	1931		1100	34-6N-11W		
MJ 1628	Butte Petroleum Co., Inc.	Ruby	1	1960	1961	2745GR	3805	26-6N-10W		
MJ 3226	Walter Siravo	Ralph Arnold	1	1950	1950		830	27-6N-8W		
MJ 4626	A. C. Anderaon	Black Butte	1	1949	1950	3000GR	3092	26-6N-7W	2201' - Oil & Gas 2085-2105'	3092'
MJ 6232	A. B. Clark & C. E. Huntton	Mutz	1	1952	1953	2800GR	200	4-6N-5W		
MJ 6626	Mojave River Oil Company	Well	1	1920	1920	2800GR	816	25-6N-5W		
MJ 7224	H. T. Widney & G. G. Widney	Well	1	1949	1949	3000GR	520	33-6N-4W		
LJ 9824	Wright Oil Tool Company	Wright	1	1937	1937	2750GR	1420	1-5N-12W		370'
MJ 0024	Lindsey, R.S.	Ballentine	1	1937	1938		1710	1-5N-12W		
MJ 0024	Dillar, William S.	Lindsey	1	1937	1937		1135	1-5N-12W	1135' - Oil	
LJ 9224	Silver Leaf Oil Company	Realty Title Co.	1	1950	1950	2500GR	635	5-5N-12W		
LJ 9224	Raymond D. Weller	Well	1	1950	1950		1281	5-5N-12W		565'
MJ 0818	J. E. Willette	Chief Paduke	1	1952	1952	3200DF	1450	24-5N-11W		
MJ 1418	Socony Mobil Oil Co., Inc	Was	1	1939	1940	65GR	5955	21-5N-10W	5790' - Faint Cut	
MJ 1418	Orlando Oil Corporation	Orlando	1	1948	1948	3402	1345	32-5N-10W		
MJ 2218	Willette Oil Company	Virginia Lee	1	1944	1947	3175DF	3900	20-5N-9W	3394-3404' - Petroleum Odor	3573'
MJ 3218	J. B. Halbert	Houston	1	1950	1950	3265GR	600	15-5N-8W		
MJ 5418	Victor Valley O&R Co.	Victor	1	1931	1931	3500	3216	22-5N-6W		
NJ 0618	Lucerne Valley Exploration Company, Ltd.	Laurabel- Norman	1	1955	1955	2865RT	657	19-5N-1E	657' - Oil & Gas 625-650'	657'
MJ 4608	Alton Oil & Development Co.	Handley	1	1955	1956	4433KB	6365	23-4N-7W	5500' - Oil & Gas	3700'
MJ 4808	Richard Oil Company	Nielson	1	1956	1956	4505DF	4011	24-4N-7W	2800' - Oil & Gas	
MJ 6610	Rex Oil Company	Justice	1-B	1950	1950	3500GR	3096	13-4N-5W		
MJ 6404	Ute Oil Company	Lee Salter	1	1944	1944	3700	2802	34-4N-5W		
MJ 7006	Hesperia Oil & Gas Company of California	29	1	1924	1924	3375GR	3103	29-4N-4W		
MJ 7006	Hesperia Oil & Gas Company of California	29	1	1925	1925	2960GR	3316	29-4N-4W		
MJ 8012	B.K.E. Drilg. & Prd. Co.	Inland	1	1940	1940	3000	250	4-4N-3W		
MJ 8012	Albert Crooks	Inland	1	1940	1940	3000GR	1335	4-4N-3W		1310'

UTM Coordinate	Operator	Lease	Well Number	Year Start	Year Complete	Elevation (feet)	Total Depth (feet)	Location	Shows Reported	Depth Basement Encountered (feet)
MJ 8010	The Ord Oil Company	Ord	1	1954	1955	3006KB	3097	9-4N-3W		3086'
NJ 0210	Verne Chute	Lucerne Valley	1	1936	1936	3000GR	1745	14-4N-1W		1745'
MJ 9808	Allied Petroleum Corp.	Chief	1	1947	1951	2990	1850	17-4N-1W	1510' - Oil & Gas	1347'
MJ 9808	Moore & Peterson	Lucerne Valley	1	1932	1932		1512	17-4N-1W		
MJ 9808	Paul M. Peterson	Moore	1	1931	1932	3000GR	1544	17-4N-1W		
MJ 6400	Cajon Basin Company	Carver	1	1954	1954	3500GR	1428	14-3N-5W		1428'
NH 5486	Retari Company, Inc.	Retari	1	1953	1954	3856GR	1311	25-2N-5E	1265-1311' - Oil	2106'
NH 7486	Oro Negro Oil Company	Onoco	1	1962	1962	2308RT	2106	28-2N-8E	1792'	
NH 8880	W. E. David	21	1	1966	1966	2005KB	1472	21-1N-9E		
NH 9278	Custom Drilling Company	Bergman	1	1957	1957	2005KB	425	24-1N-9E		
NH 9676	Lee Oil Development	Lee Oil	1	1975	1975	1846KB	1715	29-1N-10E		1715'
NH 3458	Painted Hills Oil Assoc.		1	1920	1920	200GR	1250	25-2S-3E		
NH 3658	Painted Hills Oil Assoc.		2	1921	1921	1900GR	350	30-2S-4E		
NH 3454	C & K Oil Company	Moore	1	1955	1956	1677KB	868	1-3S-3E		
NH 3254	Parsons Petroleum Company	Well	1	1962	1963	1635KB	460	2-3S-3E		
NH 3054	Cabazon Central Oil Co.	9	1	1922	1922	1200GR	700	9-3S-3E		
NH 4054	Western Development Corp.	4	1	1921	1921	1130GR	975	4-3S-4E		
NH 5248	The Texas Company	Stone (NCT-1)	1	1953	1954	1512GR	7474	35-3S-5E		
NH 7234	CHS Company, Ltd.	Bobbic	1	1950	1951	-17GR	1901	11-5S-7E	3812' - Slight Shows of Oil & Gas	6039'
PH 0210	Spindletop Oil Syndicate	Salton Sea	1	1929	1933	150GR	3812	25-7S-10E	4020' - Gas	
NG 9282	The Pure Oil Company	Truckhaven Unit	1	1944	1944	99	6100	26-10S-9E		
PG 3282	E. J. Piatt		1	1933	1933	-160GR	173	24-10S-13E		
NG 8462	Oklahoma Oil Company	Well	1	1931	1934		213	25-11S-8E		
NG 8470	San Felipe Oil Company	Dauner	1	1932	1933	175GR	847	25-11S-8E		
NG 9270	Diamond Bar Oil Company	Well	1	1950	1950		3085	25-11S-9E		
NG 9270	Jesse M. Nelson	25	1	1920	1920	100GR	3085	25-11S-9E		
NG 9072	Standard Oil Company	Southern Land Company	1	1944	1944	57GR	4531	27-11S-9E	3293' - Gas	4531'
PG 0076	Mortimer & Rasmussen	Truckhaven	1	1950	1950	-115GR	2543	10-11S-10E		
NG 9470	Texaco, Inc.	Pure (NCT-1)	1	1951	1952	162GR	4414	31-11S-10E		
NG 9868	Imperial Valley Oil & Development Association	32	1	1919	1930	100GR	2800	32-11S-10E		
NG 9868	Imperial Valley Pet. Co.	Well	1	1929	1930	150GR	4160	33-11S-10E	1635-1645', 1734-1746', 2467-2507', 2520-2525', 2552-2555': Oil & Gas; 2708-2720': CO <sub>2</sub>	
PG 5678	Barth Oil Company, Inc.	Barth	1	1934	1942	750GR	2855	5-11S-16E		
PG 5276	D. H. Wood	Melson	1	1931	1931	650GR	900	7-11S-16E		
PG 5476	Irex Oil Company	7	1	1947	1947	650GR	1375	8-11S-16E		
QG 0478	Bernard J. Patton	Midway Well	1	1960	1961	5650F	3809	6-11S-21E	880-1050': Light Oil & Gas	
QG 0478	Campbell, Egger & Rottman	Federal	1	1953	1954	575GR	1320	6-11S-21E	1080' - Swabbed a little Oil	2100'
NG 8268	John F. Sheran	Sheran	1	1930	1940	180GR	3912	3-12S-8E		
PG 3264	Sardi Oil Company	Biff	1	1960	1962	-166GR	6350	24-12S-13E		
PG 3654	Anerada Hess Corporation	Veysey	1	1944	1945	150	8350	9-13S-14E		
PG 6858	Ajax Oil & Development Co.	USL Phillips	1	1955	1955	272KB	3315	2-13S-17E		
PG 1648	Texaco, Inc.	Brawley Unit	1	1952	1952	112GR	8647	4-14S-12E		
PG 4440	Chevron	Stipek	1	1963	1963	-110DF	13443	20-14S-15E		
PG 5842	104 Oil & Drilling Co.	Wilson (et al.)	1	1925	1925		1911	14-14S-16E		
PG 5842	104 Oil & Drilling Co.	11	2	1926	1926		2400	14-14S-16E		
PG 5844	104 Oil & Drilling Co.	11	3	1927	1927		989	14-14S-16E		
NG 8434	Carizzo Valley Oil Corp.	Well	1-13	1956	1956	563GR	900	13-15S-8E		

UTM Coordinate	Operator	Lease	Well Number	Year Start	Year Complete	Elevation (feet)	Total Depth (feet)	Location	Shows Reported	Depth Basement Encountered (feet)
PG 6832	American Petrofina Exploration Company	U.S.A.	27-1	1966	1966	101KB	10550	27-15S-17E		
HG 9826	San Diego & Imperial Valley Oil Company		1		1928		2500	9-16S-10E		
PG 0428	Southwestern Petroleum & Pipeline Company		1		1925		700	6-16S-11E		
PG 3620	Amerada Hess Corporation	Tinken	1	1945	1945		7323	28-16S-14E		
PG 1428	Texaco, Inc.	F. D. Browne	1	1952	1952	34GR	7808	6-16S-12E		
PG 5424	Texaco, Inc.	Grape								
PG 6624	H. W. Schafer	Ergebretsen	1	1944	1945	8GR	12313	8-16S-16E		
QG 0028	Andrew J. Crevolin	Barbara	1	1958	1960	94KB	8017	16-16S-17E		
HG 9818	Petrodynamics Association	Betsey Ross	1	1956	1957	250GR		3-16S-20E		
PG 0412	DeAnza Oil Company, Ltd.	Straw	1	1964	1968	378DF	4008	2-17S-10E		
		F.G.W. deAnza							1050' - Minor Shows	
PG 0412	J. B. Nelson	USL	1	1959	1959	377KB	1245	20-17S-11E		
PG 0412	Clarence E. Harrison	Snow Government	1	1967	1968	0	1160	20-17S-11E		
PG 0412	Mike Barkett	Yaha	1	1961	1968	354RT	3210	20-17S-11E		230'
		Barkett	2	1962	1968	350RT	1200	20-17S-11E	395' - Oil, 490-520': Thin Oil, 640-700' and 740-855': Oil & Gas Shows Increased	
PG 3214	Texaco, Inc.	Jacobs NCT-1	1	1951	1951	10GR	7505	18-17S-14E		

NOTE: Source is Munger unless otherwise indicated by asterisk. San Bernadino is Base Meridian (except where indicated by MD = Mount Diablo).

\* Source: California Division of Oil & Gas, Maps (See bibliography)

Table A-4

SUMMARY OF EXPLORATORY WELLS DRILLED FOR CO<sub>2</sub> IN THE CDCA

UTM Coordinate	Operator	Lease	Well Number	Year		Elevation (feet)	Total Depth (feet)	Location
				Start	Complete			
PG 9618	Pacific Dry Ice Company	Pacific Dry Ice	1	1946	1946	-150GR	1505	9-9S-12E
PG 9620	Pacific Dry Ice Company	Pacific Dry Ice	2	1946	1946	-150	1510	11-9S-12E
PG 9620	Pacific Dry Ice Company	Pacific Dry Ice	3	1947	1947	-150GR	1560	11-9S-12E
PG 9620	O'Quinn & Hadley	All American						
		Acres Comm.	1	1944	1944	-125	1452	11-9S-12E
PG 3080	Anthony Rivers Dev. Co.	Anthony	1	1945	1945	-237GR	533	34-10S-13E
PG 3078	Cardox Corporation	Well	B-9		1941		860	3-11S-13E
PG 3076	Cardox Corporation	Well	B-8		1941		860	11-11S-13E
PG 3472	J. P. Chandler & Lee Station	19	1	1935	1935	220GR	590	19-11S-14E

NOTE: Source is Munger. San Bernadino is Base Meridian.

Table A-5

## SUMMARY OF EXPLORATORY GEOTHERMAL WELLS IN THE CDCA

UTM Coordinate	Operator	Lease	Well Number	Year		Elevation (feet)	Total Depth (feet)	Location*	Remarks
PG 1648	Magma Energy, Inc.	Bonanza	1	1973	1975	-51KB	5024	22-15S-14E	Abandoned
PG 2298	Q. B. Resources International	1	1	1973	1973	-63KB	1695	1-9S-12E	
PG 2416	Magma Energy, Inc.	Fed-Rite	1	1973	1973	-8KB	5100	8-17S-13E	
PG 2462	Magma Energy, Inc.	Dearborn	1	1972	1972	215KB	4135	30-12S-13E	Unsatisfactory
	Republic Geothermal, Inc.	Dearborn Farms	1	1976	1976	-200KB	8000	30-12S-13E	Potential Producer
PG 2660	Republic Geothermal, Inc.	Dearborn	2	1976	1977	-213FR	4564	30-12S-13E	Potential Producer
PG 2664	Republic Geothermal, Inc.	Kulin Farms	1	1976	1976	-59KB	8490	32-12S-13E	
	Republic Geothermal, Inc.	Landers	1	1976	1976	-202KB	7705	20-12S-13E	Potential Producer
	Republic Geothermal, Inc.	Landers	2	1976	1976	-202KB	7507	20-12S-13E	Potential Producer
	Republic Geothermal, Inc.	Landers	3	1976	1976	-202KB	4650	20-12S-13E	Potential Producer
	VanHeusen and Griffen	Grace	1	1963	1963	202KB	1200	19-12S-13E	
PG 2670	Imperial Magma	MAGMAX	2	1972	1974	-239KB	4305	33-11S-13E	(Source: DOG G2-1)
PG 2868	Salton Sea Chemical Products Geothermal Energy & Mineral Corporation		1	1957	1958	-215KB	1050	28-11S-13E	
	Geothermal Energy & Mineral Corporation	Sinclair	1	1957	1958	-215KB	4680	10-12S-13E	
	Geothermal Energy & Mineral Corporation	Sinclair	2	1961	1961	-220	2368	4-12S-13E	
	Geothermal Energy & Mineral Corporation	Sinclair	3	1962	1973	-220GR	6972	10-12S-13E	
PG 2870	Union Oil Company	J. J. Elmore	1	1964	1964	-225GR	7117	27-11S-13E	Producer
	Imperial Magma	Elmore	3	1974	1975	-227	2510	27-11S-13E	Potential Producer
	Imperial Magma	MAGMAX	1	1971	1975	-214KB	2800	33-11S-13E	
	Imperial Magma	MAGMAX	3	1972	1974	-238KB	4000	33-11S-13E	
	Imperial Magma	MAGMAX	4	1972	1972	-238KB	2560	33-11S-13E	500-550 °F Bottom
	Imperial Magma	Woolsey	1	1972	1975	-213KB	2400	33-11S-13E	
PG 2876	Pioneer Development Company		1	1927	1927		675	10-11S-13E	
	Pioneer Development Company		2	1927	1927		1200	10-11S-13E	
	Pioneer Development Company		3	1927	1927		1400	10-11S-13E	
PG 3072	Shell Oil Company	State of California	1	1964	1964	-2180F	4859	23-11S-13E	
	Imperial Thermal Products	Imperial Irrigation District	2	1963	1977	-200GR	5826	22-11S-13E	
	Imperial Thermal Products	Imperial Irrigation District	1	1962	1966		5230	23-11S-13E	113,400#/hr. steam 423,600#/hr. water Wellhead pressure 182 psig
	Imperial Thermal Products	Imperial Irrigation District	3	1965	1975		1200	23-11S-13E	
	Imperial Thermal Products	Sportsman	1	1961	1961	-214KB	4736	23-11S-13E	57,000#/hr. steam 209,000#/hr. water Wellhead 200 psig, 390°F
PG 3216	Union Oil Company	Bacon	1	1976	1976	2KB	4037	7-12S-14E	
PG 3272	Salton Sea Chemical Products		5	1964	1933		900	24-11S-13E	(Source: DOG G2-1)
PG 3274	Union Oil Company	Hudson	1	1964	1964		6141	13-11S-13E	Successful Steam Well
	Union Oil Company	River Ranches	1	1963	1963	-211KB	8100	24-11S-13E	100 psig Wellhead 800°F Bottom
PG 3420	New Albion Resources Company (Magma)	Heltz	2	1972	1972	2KB	5000	31-16S-14E	

UTM Coordinate	Operator	Lease	Well Number	Year Start	Year Complete	Elevation (feet)	Total Depth (feet)	Location*	Remarks
PG 3444	Chevron USA, Inc.	Rutherford	1	1977	1977	-40KB	7930	8-13S-14E	
PG 3618	Union Oil Company	Thomson	1	1976	1976	10KB	7132	4-17S-14E	
PG 3620	New Albion Resources Company (Magma)	Holtz	1	1972	1972	2KB	5150	32-16S-14E	
	Chevron Oil Company	C. B. Jackson	1	1974	1974	-5KB	6000	32-16S-14E	
	Chevron Oil Company	Nowlin Partnership	1	1972	1973	7KB	5030	33-16S-14E	
	Chevron Oil Company	J. D. Jackson, Jr.	1	1974	1974	-5KB	6053	33-16S-14E	
PG 3622	Chevron Oil Company	Hulse	1	1974	1974	-5KB	6400	29-16S-14E	
PG 3640	Chevron Oil Company	Mercer	1-28					30-14S-14E	
PG 3652	Union Oil Company	H. B. Tow	1	1974	1975	140KB	5031	17-13S-14E	Capable with binary system.
	Union Oil Company	Kruger	1	1975	1976	-125KB	6793	17-13S-14E	Potential Producer
	Union Oil Company	Veysey	2	1975	1975	1400F	5921	21-13S-14E	Capable with binary system.
PG 3818	Union Oil Company	Murdy	1	1976	1976	6KB	4263	10-17S-14E	
	Union Oil Company	Thomson	2	1975	1976	10KB	9701	3-17S-14E	Potential Producer
	Union Oil Company	GTW	5	1976	1976	9KB	7089	2-17S-14E	
PG 3820	Chevron Oil Company	34	GTW-3	1975	1975	0KB	3914	34-16S-14E	
	Chevron Oil Company	Saikhon	1	1975	1976	6KB	4500	34-16S-14E	
	Union Oil Company	27	GTW-1	1975	1975	0KB	3453	27-16S-14E	
PG 3822	Chevron Oil Company	27	GTW-2	1975	1975	0KB	3002	27-16S-14E	
PG 3838	McCulloch Oil Corporation	Mercer	2-28					30-14S-15E	
PG 3854	Union Oil Company	Veysey	1	1974	1977	-140RT	8385	15-13S-14E	Capable with binary system.
	Union Oil Company	Cox	1	1974	1977	-477KB	9609	15-13S-14E	Potential Producer
	Union Oil Company	Jiminez	1	1974	1976	-150GR	9618	15-13S-14E	
PG 4618	Republic Geothermal Inc.	Silzle	1	1974	1975	30KB	11015	33-16S-15E	
PG 6028	Magma Energy, Inc.	Sharp	1	1972	1972	27KB	6070	35-15S-16E	
PG 5626							11600	8-16S-16E	320°F, (Source: GLC)
PG 6226	Magma Power	Magma U.S.	44-7	1976	1976	30GR	7328	7-16S-17E	Potential Producer
	Magma Power	Magma U.S.	48-7	1976	1976	30GR	7523	7-16S-17E	Potential Producer
	Magma Power	Magma U.S.	46-7	1977	1977	42KB	3095	7-16S-17E	
PG 6228	U.S. Bureau of Reclamation	Mesa	6-2	1973	1973	26GR	6005	6-16S-17E	2350 psig, 280°F surface
	U.S. Bureau of Reclamation	Mesa	6-1	1972	1972	34GR	8030	6-16S-17E	390-395°F Bottom, Producer
PG 6230	Republic Geothermal, Inc.	30	38-30	1975	1976	35GR	9009	30-15S-17E	Potential Producer
	Republic Geothermal, Inc.	30	30-7	1975	1977	165KB	7520	30-15S-17E	Capable
	Republic Geothermal, Inc.	30	30-5	1975	1977	50KB	8000	30-15S-17E	Potential Producer
	Republic Geothermal, Inc.	30	30-4	1975	1977	48KB	7439	30-15S-17E	Potential Producer
	U.S. Bureau of Reclamation	Mesa	31-1						Capable, (Source: DOG G2-5)
PG 6426	U.S. Bureau of Reclamation	Mesa	8-1	1974	1974	50MAT	6200	8-16S-17E	
PG 6428	U.S. Bureau of Reclamation	Mesa	5-1	1974	1974	71MAT	6016	5-16S-17E	300°F @ 4689'
PG 6430	Republic Geothermal, Inc.	28	18-28	1975	1976	18KB	8000	28-15S-17E	Capable
	Republic Geothermal, Inc.	29	29-5	1975	1975		8021	29-15S-17E	
PG 8630	Dept. of Water Resources	Dunes	1	1972	1972	184KB	2016	33-15S-19E	218°F @ 850-890'
									210°F @ approx. 600'
									195-200°F @ 2000'
									Temp. over 300° @ 4043'
HK 2688	CER Corp. (Opur. for Navy)	CGEH	1	1977	1977		4727	6-22S-38EMD	
	Battelle Pacific N.W. Lab	Slimhole	1	1976	1976			6-22S-38EMD	
MK 3220								12-29S-39EMD	80°F, (Source: GLC)
HK 4814								28-29S-41EMD	81°F, (Source: GLC)
MK 5014								26-29S-41EMD	205°F, (Source: GLC)
MK 6868								9-24S-43EMD	137°F, (Source: GLC)

UTM Coordinate	Operator	Lease	Well Number	Year Start	Complete	Elevation (feet)	Total Depth (feet)	Location*	Remarks
PJ 9670							3086	18-10N-21E	109°F, (Source: GLC)
PJ 1822							284	2-5N-12E	84-89°F, (Source: GLC)
NH 4654								5-3S-5E	200°F, (Source: GLC)
NH 5054								10-3S-5E	200°F, (Source: GLC)
NH 5252								14-3S-5E	Hot, (Source: GLC)
NH 6842							360	9-4S-7E	120°F, (Source: GLC)
NH 9622							864	19-6S-10E	Hot, (Source: GLC)

NOTE: Source is Munger unless otherwise indicated in remarks column.  
 DOG is California Division of Oil and Gas.  
 GLC is USGS Geothermal Land Classification Map.

\* San Bernadino Base Meridian, except MD indicates Mount Diablo Base Meridian.

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